

Biochemistry

DNA SEQUENCE ANALYSIS OF THREE CLONES CONTAINING CHALCONE SYNTHASE GENE OF PETUNIA HYBRIDA

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The diversity in flower color is mostly due to differences in either the structural or the regulatory genes of the flavonoid biosynthetic pathway. The pathway leads to accumulation of anthocyanins, the main pigments responsible for flower color. Chalcone synthase (CHS) is an enzyme in the biosynthesis of flavonoides, which plays a role in the pigmentation of flowers and act as attractants to pollinators. Genes encoding CHS constitute a multigene family in which the copy number varies among plant species.

The objective of the research is to modify the gene sequence. Previous work done in this laboratory by others has included assembly of synthetic oligonucleotides covering the coding sequence of chalcone synthase and cloning of the CHS fragments. Here, we report the DNA sequence of the three clones as determined by Sanger dideoxy mediated chain termination method.

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